

MONOSOMA PULVERATA (HYMENOPTERA: TENTHREDINIDAE), AN ALDER-FEEDING SAWFLY NEW TO NORTH AMERICA¹

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ABSTRACT: *Monosoma pulverata*, a European alder-feeding sawfly, is reported as new to North America from specimens taken in Newfoundland. It is separated from the only native North American species of *Monosoma*, *M. inferentia*.

Monosoma pulverata (Retzius), an alder sawfly native to Europe, northern Africa, and the Near East, was collected on three different occasions in Newfoundland in 1991 and 1998. The species is undoubtedly a relatively recent introduction, and, because of the prevalence of its host plant in North America, it is likely to spread on the continent. It is an addition to several species of sawflies on alder that have previously been accidentally introduced into North America: *Fenusa dohrnii* (Tischbein), a leafminer, and *Eriocampa ovata* (L.) and *Croesus varus* (Villaret), both external leaf feeders (all Tenthredinidae) (Smith, 1979b).

Monosoma MacGillivray was treated by Smith (1979a) in a revision of North American Allantinae and includes only one native species, *Monosoma inferentia* (Norton), which also feeds on *Alnus* spp. *Monosoma inferentia* occurs from Newfoundland (insular and Labrador) west to British Columbia in Canada, and from Maine to North Carolina west to Minnesota and Illinois in the United States. The sheath, lancet, and male genitalia were illustrated by Smith (1979, figs. 186, 187, 189, 190).

Monosoma pulverata occurs throughout Europe and in northern Africa (Lacourt, 1975) and Turkey to the Caucasus (Benson, 1968). Notes on its larva and biology were given by Pieronek (1976, 1980, 1983, 1985). The male genitalia were illustrated by Taeger (1987, fig. 13) and Lacourt (1975, fig. 1). Taeger (1987, fig. 14) illustrated a central depression on the 8th tergite; we did not see this in males of *M. inferentia*. We have not seen males from North America. Males are rare in Europe, and Benson (1952) believed it to be parthenogenetic since males had not been found in Britain.

The females of the two species are distinguished by coloration. Both sexes also can be distinguished by clypeus shape, size of the postocellar area, and dull or shining surface sculpture.

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Key to Species

1. Postocellar area longer than broad (Fig. 3); head and thorax dull, with fine microsculpture; in female, anterior half or more of clypeus whitish and thorax and abdomen largely yellow to orange, variable; clypeus shorter and broader (Fig. 1) *M. inferentia*
- Postocellar area about as long as broad (Fig. 4); head and thorax shining, without microsculpture; in female, less than half of anterior of clypeus reddish brown and thorax and abdomen mostly black; clypeus longer and less broad (Fig. 2) *M. pulverata*

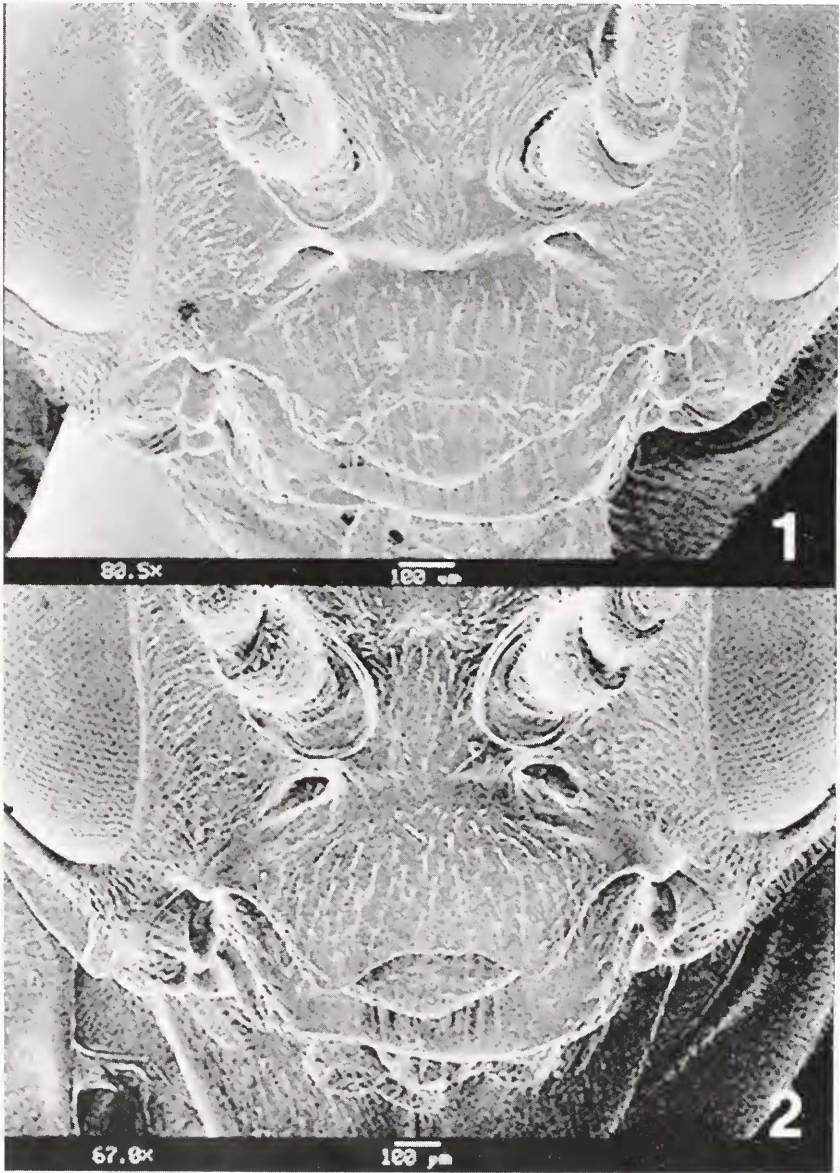
Females of *Monosoma pulverata* have the antenna and head black with the labrum white and front margin of the clypeus reddish brown; thorax black with posterior corners of the pronotum and tegula yellow and sometimes a brownish stripe on the posterior margin of the mesepisternum; legs reddish brown with the base and inner surface of the coxae black and the hindtibia and all tarsi blackish; abdomen black with the apical margins of the segments beyond the first, apical segment, and lateral spots on the terga whitish to yellowish. The wings are hyaline with the subcosta and stigma of the forewing amber and remaining veins brownish to black.

North American records for *Monosoma pulverata* are: NEWFOUNDLAND: South Branch Grand Codroy R., Hwy 1, 5 June 1998, B. Kondratieff, R. Baumann (2 ♀); Gander R., Hwy 1, Appleton, 9 June 1998, B. Kondratieff, R. Baumann (1 ♀); Codroy pond, 10 June 1991, H. Goulet (1 ♀). Deposited in the Colorado State University collection and the Canadian National Collection.

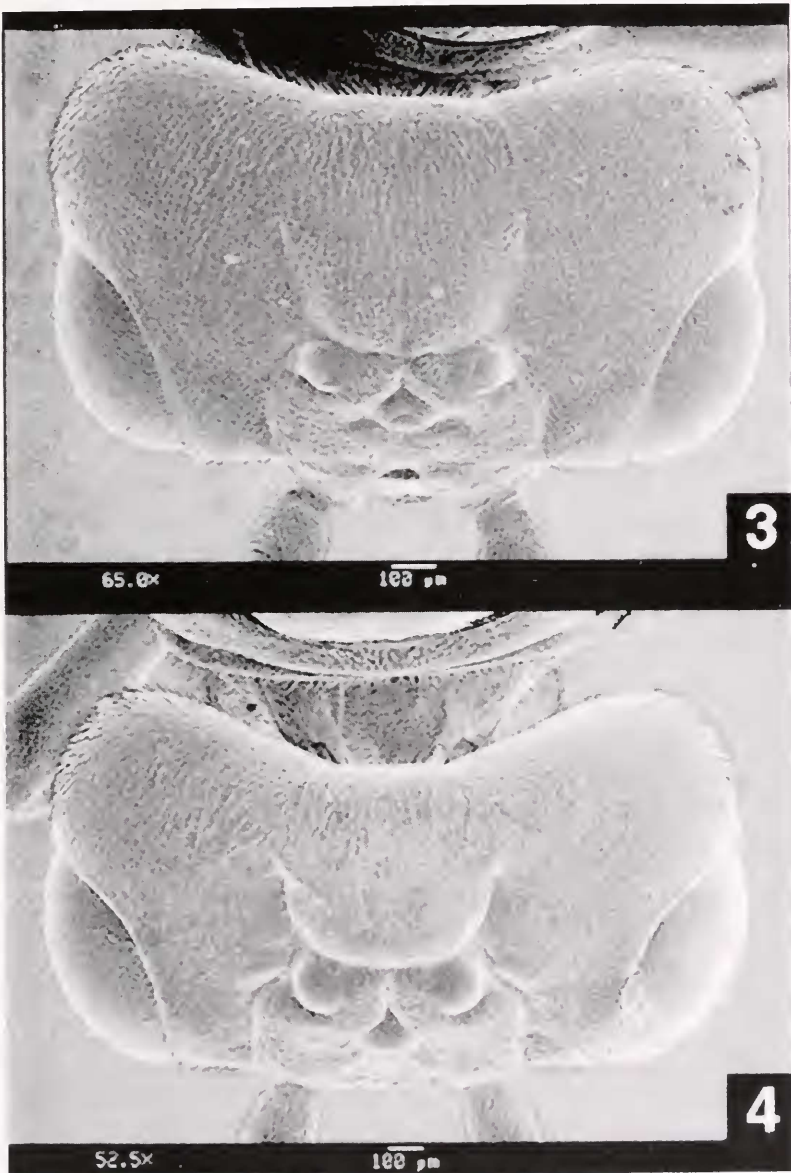
Females of *Monosoma inferentia* are mostly orange to reddish brown with the clypeus white, antenna black and usually some marks on the mesosternum, lobes of mesonotum, posterior portion of mesoscutellum, and metanotum black. The coloration is variable and the head may be mostly black and the black marks on the thorax faint or extensive. The wings are hyaline with the stigma and veins of the forewing brownish to black with the basal half of the stigma amber.

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Figs. 1-2. Front of head. 1, *Monosoma inferentia*. 2, *M. pulverata*.



Figs. 3-4. Dorsal view of head. 3, *Monosoma inferentia*. 4, *M. pulverata*.

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